CLAIMS

What Is Claimed Is:

1. An electrical contact assembly comprising:
a garter spring having an inner diameter; and
a garter spring retainer comprising a tubular wall receiving said garter spring, the tubular wall having an inner cylindrical surface defining a retainer opening adapted to receive an electrical contact, said tubular wall further including an outer, cylindrical surface having an outer diameter smaller than the inner diameter of the garter spring in the relaxed state of the spring, the garter spring being thereby preloaded when the garter spring is in place on the tubular wall, the tubular wall further having at least one aperture through which a corresponding section of the garter spring projects inwardly into the retainer opening for engaging the electrical contact received therein.

2. The electrical contact assembly of claim 1 wherein:
said at least one aperture comprises at least one slot extending circumferentially about said tubular wall of the retainer.

3. The electrical contact assembly of claim 2 wherein:
the tubular wall of the retainer has a plurality of slots spaced apart circumferentially about said tubular wall.

4. The electrical contact assembly of claim 3 wherein:
said plurality of slots are of equal length.

5. The electrical contact assembly of claim 4 wherein:
the plurality of slots are equiangularly spaced about said tubular wall.

6. The electrical contact assembly of claim 5 wherein:
the tubular wall defines three slots.

7. The electrical contact assembly of claim 1 wherein:
the retainer includes a flange projecting radially outward from one end of the tubular portion.

8. The electrical contact assembly of claim 7 wherein:
the assembly includes a cylindrical cap engaging an outer edge of the flange, the garter spring being captured between the flange and the cap.

9. The electrical contact assembly of claim 8 wherein:
the garter spring engages the retainer and cap at multiple contact points.

10. An electrical contact assembly comprising:
an annular housing defining an interior space, the housing including a tubular wall having an outer surface facing said interior space and an inner surface defining a central opening adapted to receive an electrical contact, said wall defining at least one aperture; and
a garter spring contained within the interior space of the housing, the garter spring having an inner diameter, the garter spring encircling the outer surface of said wall under preload so that a portion of said inner diameter of the spring projects through said at least one aperture into the central opening of the housing for engaging an electrical contact received within said central opening.

11. The electrical contact assembly of claim 10 wherein:
said at least one aperture comprises at least one slot extending circumferentially along said wall of said housing.

12. The electrical contact assembly of claim 11 wherein:
the wall defines a plurality of circumferentially spaced-apart slots.

13. The electrical contact assembly of claim 12 wherein:
said plurality of slots are of equal length.

14. The electrical contact assembly of claim 13 wherein:
the plurality of slots are equiangularly spaced apart.

15. The electrical contact assembly of claim 5 wherein:
the wall of the housing defines three slots.

16. An implantable medical device for delivering electrical stimuli via a detachable electrical lead having a connector assembly on a proximal end of the lead, the implantable medical device comprising:
a pulse generator for generating said electrical stimuli;
a sealed housing containing said pulse generator; and
a header affixed to said sealed housing, said header defining at least one receptacle for detachably receiving the connector assembly on the lead, said at least one receptacle containing at least one electrical contact assembly electrically coupled to said pulse generator via a feedthrough carried by the sealed housing, the at least one electrical contact assembly being adapted to be engaged by a contact on the connector assembly, the at least one electrical contact assembly comprising an annular housing defining a central opening for receiving the connector assembly contact, the housing containing a garter spring under preload, the housing having an inner wall defining at least one aperture, a portion of said preloaded garter spring projecting through said aperture into the central opening of the annular housing for engaging the contact on the connector assembly.

17. The implantable medical device of claim 16 wherein:

the receptacle is defined by a wall having an annular channel for receiving the at least one electrical contact assembly.

18. A system for electrically stimulating body tissue comprising:

a. an implantable lead comprising:

a distal end carrying at least one electrode adapted to engage the tissue to be stimulated, and a proximal end carrying a connector assembly including a contact electrically connected to said at least one electrode; and

b. an implantable medical device comprising:

a pulse generator for generating electrical stimuli;

a sealed housing containing said pulse generator; and

a header affixed to said sealed housing, said header defining at least one receptacle for detachably receiving the connector assembly on the lead, said at least one receptacle containing at least one electrical contact assembly electrically coupled to said pulse generator via a feedthrough carried by the sealed housing, the at least one electrical contact assembly being adapted to be engaged by the contact on the connector assembly, the at least one electrical contact assembly comprising an annular housing defining a central opening for receiving the connector assembly contact, the housing containing a garter spring under preload, the housing having an inner wall defining at least one aperture, a portion of said preloaded garter spring projecting through said aperture into the central opening of the annular housing for engaging the contact on the connector assembly.

19. The system of claim 18 wherein:

the contact on the connector assembly has a groove formed therein for receiving the projecting portion of said garter spring for detachably latching the connector assembly in said receptacle.